A Big Earth Data Platform for Three Poles

**Digital soil mapping dataset of soil organic carbon content in the Heihe River Basin (2012)**

1、Description

According to the global soil map. Net standard, the 0-1m soil depth is divided into 5 layers: 0-5cm, 5-15cm, 15-30cm, 30-60cm and 60-100cm. According to the principle of soil landscape model, the spatial distribution data products of soil organic carbon content in different layers are produced by using the digital soil mapping method. The source data of this data set comes from the soil profile data integrated by the major research plan integration project of Heihe River Basin (soil data integration and soil information product generation of Heihe River Basin, 91325301).
Scope: Heihe River Basin;
Projection: WGS · 1984 · Albers;
Spatial resolution: 100M;
Data format: TIFF;
Dataset content:
hh\_soc\_layer1.tif: 0-5cm soil organic carbon content;
hh\_soc\_layer2.tif: 5-15cm soil organic carbon content;
hh\_soc\_layer3.tif: 15-30cm soil organic carbon content;
hh\_soc\_layer4.tif: 30-60cm soil organic carbon content;
hh\_soc\_layer5.tif: 60-100cm soil organic carbon content;

2、Keywords

Theme：Soil,Organic matter
Discipline：Terrestrial Surface
Places：Heihe River Basin, whole basin
Time：2012

3、Data details

1.Scale：500000

2.Projection：4326

3.Filesize：464.0MB

4.Data format：三维土壤有机碳含量分布数据集

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：42.687 | - |
| west：97.0667 | - | east：101.9898 |
| - | south：37.6893 | - |

5、Time frame:2012-07-12 08:00:00+00:00--2015-07-12 08:00:00+00:00

6、Reference method

References to data:

ZHANG Ganlin. Digital soil mapping dataset of soil organic carbon content in the Heihe River Basin (2012). A Big Earth Data Platform for Three Poles, doi:10.3972/haihe.102.2017.db2017

References to articles:

Song, X.D., Brus, D.J., Liu, F., Li, D.C., Zhao, Y.G., Yang, J.L., Zhang, G.L. (2016). Mapping soil organic carbon content by geographically weighted regression: A case study in the Heihe River Basin, China. Geoderma, 261, 11–22.

Yang, R.M., Zhang, G.L, Liu, F., Lu, Y.Y., Yang, F., Yang, F., Yang, M., Zhao, Y.G., Li, D.C. (2016). Comparison of boosted regression tree and random forest models for mapping topsoil organic carbon concentration in an alpine ecosystem. Ecological Indicators, 60, 870–878.

7、Supporting project information

8、Data resource provider

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